

LISTING to the CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

1-57. (Canceled)

58. (Previously presented) A method for providing antimicrobial activity on skin, the method comprising the steps of:

administering to skin a composition comprising a biguanide polymer, a metallic material, and a carrier selected from the group consisting of a cream, a lotion, a deodorant, a spray, a gel, a wax, an oil, an ointment, a soap, and an alcohol, and

forming a moisture-resistant film on the skin, thereby imparting a persistent antimicrobial activity on the skin.

59. (Canceled)

60. (Previously presented) The method of claim 58, wherein the biguanide polymer comprises poly(hexamethylenebiguanide), poly(hexamethylenebiguanide) hydrochloride, poly(hexamethylenebiguanide) gluconate, poly(hexamethylenebiguanide) stearate, or a derivative thereof.

61. (Canceled)

62. (Previously presented) The method of claim 58, wherein the metallic material is silver or a silver compound.

63. (Previously presented) The method of claim 62, wherein the metallic material is silver nitrate.

64. (Previously presented) The method of claim 63, wherein the metallic material is silver iodide.

65. (Previously presented) The method of claim 58, wherein the biguanide polymer is present as an adduct with a substantially water-insoluble organic compound.

66. (Original) The method of claim 65, wherein the substantially water-insoluble organic compound comprises a reactive member selected from the group consisting of carbodiimide, isocyanate, isothiocyanate, succinidyl ester, epoxide, carboxylic acid, acid chloride, acid halide, acid anhydride, succinidyl ether, aldehyde, ketone, sulfonyl chloride, sulfonyl halide, alkyl methane sulfonate, alkyl trifluoromethane sulfonate, alkyl paratoluene methane sulfonate and alkyl halide.

67. (Original) The method of claim 65, wherein the substantially water-insoluble organic compound is an epoxide selected from the group consisting of methylene-bis-N,N-diglycidylaniline, bisphenol-A-epichlorohydrin and N,N-diglycidyl-4-glycidyloxyaniline.

68. (Previously presented) The method of claim 58, wherein the biguanide polymer comprises a chemical group capable of forming a covalent bond.

69. (Original) The method of claim 68, wherein the covalent bond can be generated at room temperature.

70. (Original) The method of claim 68, wherein the chemical group is selected from the group consisting of an amino group, a carboxylic acid group, a hydroxyl group, or a sulfhydryl group.

71. (Original) The method of claim 68, wherein the chemical group is selected from the group consisting of carbodiimide, isocyanate, isothiocyanate, succinidyl ester, epoxide, carboxylic acid, acid chloride, acid halide, acid anhydride, succinidyl ether, aldehyde, ketone, sulfonyl chloride, sulfonyl halide, alkyl methane sulfonate, alkyl trifluoromethane sulfonate, alkyl paratoluene methane sulfonate and alkyl halide.

72-88. (canceled)

89. (Previously presented) A method for providing antimicrobial activity on skin, the method comprising the steps of:

administering to skin a composition comprising (i) an organic polycationic polymer; (ii) a metallic material; and (iii) a carrier selected from the group consisting of a cream, a lotion, a deodorant, a spray, a gel, a wax, an oil, an ointment, a soap, and an alcohol, and

forming a moisture-resistant film on the skin, thereby imparting a persistent antimicrobial activity on the skin.

90. (Previously presented) A method for providing antimicrobial activity on skin, the method comprising the steps of:

administering to skin a composition comprising, in a dermal antiseptic formulation, a biguanide polymer, a metallic material, and

forming a moisture-resistant film on the skin, thereby imparting a persistent antimicrobial activity on the skin,

wherein the dermal antiseptic formulation is selected from the group consisting of surgical scrub formulations, pre-operative skin preparations, healthcare personnel handwashes, antiseptic handwashes, antimicrobial soaps, antimicrobial creams, antimicrobial hand sanitizers, antimicrobial deodorants, antimicrobial lotions, and antimicrobial gels.

91. (Original) The method of claim 90, wherein the biguanide polymer is present as an adduct with a substantially water-insoluble organic compound.

92. (Previously presented) A method for providing antimicrobial activity on skin, the method comprising the steps of:

administering to skin a composition comprising, in a dermal antiseptic formulation, an organic polycationic polymer and a metallic material, and

forming a moisture-resistant film on the skin, thereby imparting a persistent antimicrobial activity on the skin,

wherein the dermal antiseptic formulation is selected from the group consisting of surgical scrub formulations, pre-operative skin preparations, healthcare personnel handwashes, antiseptic handwashes, antimicrobial soaps, antimicrobial creams, antimicrobial hand sanitizers, antimicrobial deodorants, antimicrobial lotions, and antimicrobial gels.

93. (Previously presented) A method for providing antimicrobial activity on skin, the method comprising the steps of:

administering to skin a composition comprising a biguanide polymer, a metallic material, and a skin-compatible component selected from the group consisting of emollients, thickeners, humectants, skin moisturizing agents, and surfactants, and

forming a moisture-resistant film on the skin, thereby imparting a persistent antimicrobial activity on the skin.

94. (Original) The method of claim 93, wherein the biguanide polymer is present as an adduct with a substantially water-insoluble organic compound.

95. (Previously presented) A method for providing antimicrobial activity on skin, the method comprising the steps of:

administering to skin a composition comprising (i) an organic polycationic polymer; (ii) a metallic material; and (iii) a skin-compatible component selected from the group consisting of emollients, thickeners, humectants, skin moisturizing agents, and surfactants, and

forming a moisture-resistant film on the skin, thereby imparting a persistent antimicrobial activity on the skin.

96. (Previously presented) A method for providing antimicrobial activity on skin, the method comprising the steps of:

administering to skin, by spreading or immersion, a composition comprising a biguanide polymer, a metallic material, and
forming a moisture-resistant film on the skin, thereby imparting a persistent antimicrobial activity on the skin.

97. (Original) The method of claim 96, wherein the biguanide polymer is present as an adduct with a substantially water-insoluble organic compound.

98. (Previously presented) A method for providing antimicrobial activity on skin, the method comprising the steps of:

administering to skin, by spreading or immersion, a composition comprising an organic polycationic polymer and a metallic material, and
forming a moisture-resistant film on the skin, thereby imparting a persistent antimicrobial activity on the skin.

99. (Previously presented) The method of claim 58, wherein the film is sweat-resistant.

100. (Previously presented) The method of claim 58, wherein the film does not leach into a contacting aqueous solution.

101. (Previously presented) The method of claim 58, wherein the metallic material is selected from the group consisting of a metal, a metal salt, a metal complex, a metal alloy, and combinations thereof.